

<b>Interview Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/614,838	HARRIS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Eliseo Ramos-Feliciano	2687	

All participants (applicant, applicant's representative, PTO personnel):

- (1) Eliseo Ramos-Feliciano. (3) \_\_\_\_\_.
- (2) Atty. Jeffrey K. Jacobs (Reg. No. 44,798). (4) \_\_\_\_\_.

Date of Interview: 30 September 2005.

Type: a) ☒ Telephonic b) ☐ Video Conference  
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.  
If Yes, brief description: \_\_\_\_\_.

Claim(s) discussed: 1,12,24 and 29.

Identification of prior art discussed: Hult et al. (US Patent Number 5,822,700) and Murto (US Patent Number 5,966,662).

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: see attachment.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

\_\_\_\_\_  
Examiner's signature, if required

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

#### Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

#### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

**MOTOROLA**

## FACSIMILE TRANSMITTAL SHEET

TO:	Examiner Ramos	FROM: (NAME & PHONE)
COMPANY:		DATE:
FAX NUMBER:	571-273-7925	TOTAL NO. OF PAGES INCLUDING COVER: 4
PHONE NUMBER:	571-272-7925	SENDER'S REFERENCE NUMBER:
RE:		YOUR REFERENCE NUMBER:

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

NOTICE: THIS FACSIMILE TRANSMISSION MAY CONTAIN INFORMATION THAT IS PRIVILEGED AND CONFIDENTIAL OR EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. IT IS INTENDED ONLY FOR THE PERSON TO WHOM IT IS ADDRESSED. UNAUTHORIZED USE, DISCLOSURE, COPYING OR DISTRIBUTION MAY EXPOSE YOU TO LEGAL LIABILITY. IF YOU HAVE RECEIVED THIS TRANSMISSION IN ERROR, PLEASE IMMEDIATELY NOTIFY US BY TELEPHONE (COLLECT) TO ARRANGE FOR THE RETURN OF THE DOCUMENTS RECEIVED AND ANY COPIES YOU MAY HAVE MADE. THANK YOU.

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- PATENT -

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	Harris et al.	EXAMINER:	Ramos Feliciano, Eliseo
SERIAL NO.:	10/614,838	GROUP:	2687
FILED:	07/08/2003	CASE NO.:	CE10878R
ENTITLED:	A METHOD FOR SIGNALING BASED ON PAGING CHANNEL LOADING		

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Motorola, Inc.  
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October 2, 2005

**PROPOSED EXAMINER'S AMENDMENT**

Examiner Ramos:

In view of our discussion Friday regarding claim amendments that could potentially lead to an allowance, we propose the amendments below to claims 1, 12, 24 and 29. Support for the transmission of short messaging via paging channels may be found in the Background section beginning at page 1 line 30 and in the description at page 6 lines 26-30.

**CLAIM LISTING**

1. (currently amended) A method for signaling based on paging channel loading comprising:
  - determining that an MS needs to be paged;
  - determining a paging channel loading level for each of a plurality of cells in which the MS may be located;
  - paging the MS only in those cells of the plurality of cells in which the paging channel loading level is below a paging threshold;
  - when a page response is received from the MS in a cell, sending short messaging to the MS in the cell, wherein sending short messaging to the MS in the cell comprises sending the short messaging without at least one optional field of the short messaging when the paging channel loading level of the cell is above an ~~overloaded threshold~~ a short messaging threshold.
2. (original) The method of claim 1, wherein the plurality of cells comprises cells in a paging zone of the MS.
3. (canceled)
4. (previously presented) The method of claim 1, wherein short messaging comprises messaging from the group consisting of data burst messaging (DBM), short message service (SMS) messaging, short data burst (SDB) messaging, a data packet, and notification messaging.
5. (canceled)
6. (original) The method of claim 1, further comprising when a page response is received from the MS in a cell, sending channel assignment messaging to the MS in the cell to assign a traffic channel to the MS.

7. (original) The method of claim 6, further comprising sending short messaging to the MS via the traffic channel.

8. (original) The method of claim 1, further comprising paging the MS only in those cells of the plurality of cells in which the paging channel loading level is below a paging threshold after determining that the service triggering the page is delay tolerant.

9. (original) The method of claim 8, wherein determining that the service triggering the page is delay tolerant comprises determining that the service is a voice call and the MS has a slot cycle index less than two.

10. (original) The method of claim 1, further comprising when no page response is received from the MS after paging in only those cells of the plurality of cells in which the paging channel loading level is below a paging threshold, paging the MS in at least one of those cells of the plurality of cells in which the paging channel loading level is above the paging threshold.

11. (original) The method of claim 1, further comprising when no page response is received from the MS after paging in only those cells of the plurality of cells in which the paging channel loading level is below a paging threshold, paging the MS in those cells of the plurality of cells in which the paging channel loading level is above the paging threshold.

12. (currently amended) A method for signaling based on paging channel loading comprising:

determining that short messaging needs to be sent to an MS;

determining a paging channel loading level for each of a plurality of cells in which the MS may be located;

transmitting the short messaging to the MS, via paging channel, only in those cells of the plurality of cells in which the paging channel loading level is below a short messaging threshold;

when no short messaging response is received from the MS after transmitting the short messaging to the MS only in those cells of the plurality of cells in which the paging channel loading level is below a short messaging threshold, transmitting the short messaging to the MS, via paging channel, in at least one of those cells of the plurality of cells in which the paging channel loading level is above the short messaging threshold.

13. (original) The method of claim 12, wherein short messaging comprises messaging from the group consisting of data burst messaging (DBM), short message service (SMS) messaging, short data burst (SDB) messaging, a data packet, and notification messaging.

14. (original) The method of claim 13, wherein notification messaging comprises messaging from the group consisting of email notification messaging, voice mail notification messaging, and presence notification messaging.

15. (canceled)

16. (original) The method of claim 12, further comprising paging the MS only in those cells of the plurality of cells in which the paging channel loading level is above the short messaging threshold and below a paging threshold.

17. (original) The method of claim 16, further comprising when a page response is received from the MS in a cell, sending the short messaging to the MS in the cell.

18. (original) The method of claim 17, wherein the sending short messaging to the MS in the cell comprises sending the short messaging without at least one optional field of the short messaging when the paging channel loading level of the cell is above an overloaded threshold.

19. (original) The method of claim 16, further comprising when a page response is received from the MS in a cell, sending channel assignment messaging to the MS in the cell to assign a traffic channel to the MS.

20. (original) The method of claim 19, further comprising sending the short messaging to the MS via the traffic channel.

21. (original) The method of claim 16, further comprising when no page response and no short messaging response are received from the MS, signaling the MS in at least one of those cells of the plurality of cells in which the paging channel loading level is above the paging threshold.

22. (original) The method of claim 21, wherein signaling the MS comprises paging the MS.

23. (original) The method of claim 21, wherein signaling the MS comprises transmitting the short messaging.



24. (currently amended) A radio access network (RAN) comprising:  
wireless transceiver equipment adapted to support signaling transmission and reception for each cell of a plurality of cells;  
a communications controller, communicatively coupled to the wireless transceiver equipment for each cell of the plurality of cells,  
adapted to determine that an MS needs to be paged,  
adapted to determine a paging channel loading level for each of the plurality of cells in which the MS may be located,  
adapted to page the MS via the wireless transceiver equipment for only those cells of the plurality of cells in which the paging channel loading level is below a paging threshold;  
adapted to send short messaging via the wireless transceiver to the MS in a cell when a page response is received from the MS in the cell, wherein the communications controller is adapted to send the short messaging without at least one optional field of the short messaging when the paging channel loading level of the cell is above ~~an overloaded threshold~~ a short messaging threshold.
25. (canceled)
26. (original) The RAN of claim 24, wherein the communications controller is further adapted, when a page response is received from the MS in a cell, to send channel assignment messaging to the MS via the wireless transceiver equipment in the cell, to assign a traffic channel to the MS.
27. (original) The RAN of claim 26, wherein the communications controller is further adapted to send short messaging to the MS via the wireless transceiver equipment and the traffic channel.

28. (original) The RAN of claim 24, wherein the communications controller is further adapted, when no page response is received from the MS after paging in only in those cells of the plurality of cells in which the paging channel loading level is below a paging threshold, to page the MS via the wireless transceiver equipment in at least one of those cells of the plurality of cells in which the paging channel loading level is above the paging threshold.

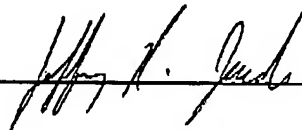
29. (currently amended) A radio access network (RAN) comprising:  
wireless transceiver equipment adapted to support signaling transmission and reception for each cell of a plurality of cells;  
a communications controller, communicatively coupled to the wireless transceiver equipment for each cell of the plurality of cells,  
adapted to determine that short messaging needs to be sent to an MS,  
adapted to determine a paging channel loading level for each of the plurality of cells in which the MS may be located,  
adapted to transmit the short messaging to the MS via the wireless transceiver equipment and via paging channel for only those cells of the plurality of cells in which the paging channel loading level is below a short messaging threshold, and  
adapted to transmit the short messaging to the MS via the wireless transceiver equipment and via paging channel in at least one of those cells of the plurality of cells in which the paging channel loading level is above the short messaging threshold, when no short messaging response is received from the MS after transmitting the short messaging to the MS only in those cells of the plurality of cells in which the paging channel loading level is below a short messaging threshold.
30. (canceled)
31. (original) The RAN of claim 29, wherein the communications controller is further adapted to page the MS via the wireless transceiver equipment only in those cells of the plurality of cells in which the paging channel loading level is above the short messaging threshold and below a paging threshold.
32. (original) The RAN of claim 31, wherein the communications controller is further adapted, when a page response is received from the MS in a cell, to send the short messaging to the MS via the wireless transceiver equipment in the cell.
33. (original) The RAN of claim 31, wherein the communications controller is further adapted, when a page response is received from the MS in a cell, to send

channel assignment messaging to the MS via the wireless transceiver equipment in the cell, to assign a traffic channel to the MS.

34. (original) The RAN of claim 33, wherein the communications controller is further adapted to send the short messaging to the MS via the wireless transceiver equipment and the traffic channel.

35. (original) The RAN of claim 31, wherein the communications controller is further adapted, when no page response and no short messaging response are received from the MS, to send the MS via the wireless transceiver equipment in at least one of those cells of the plurality of cells in which the paging channel loading level is above the paging threshold.

Respectfully submitted,  
J. Harris et al.

By: \_\_\_\_\_

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